EL839725991US

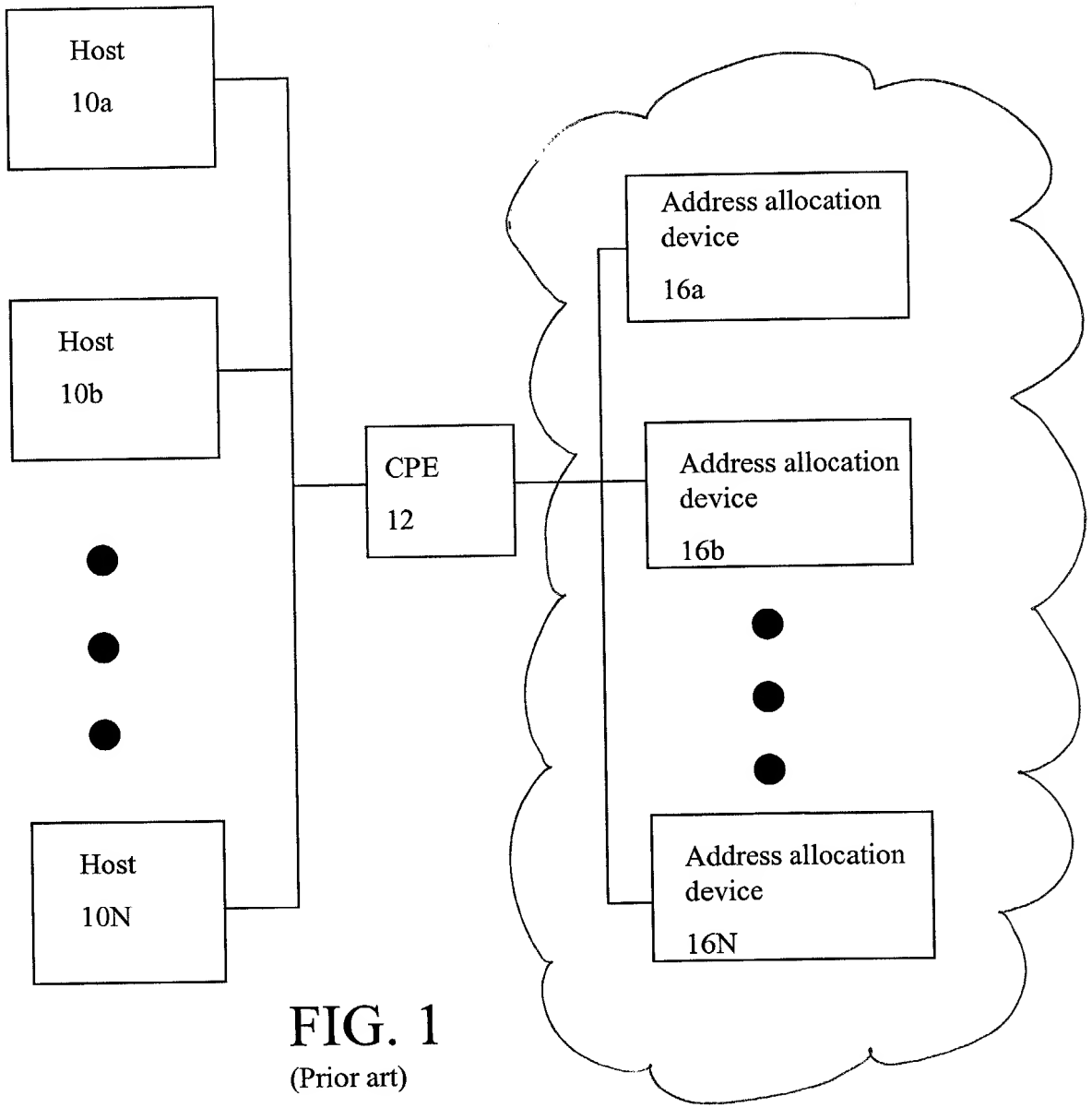

FIG. 1
(Prior art)

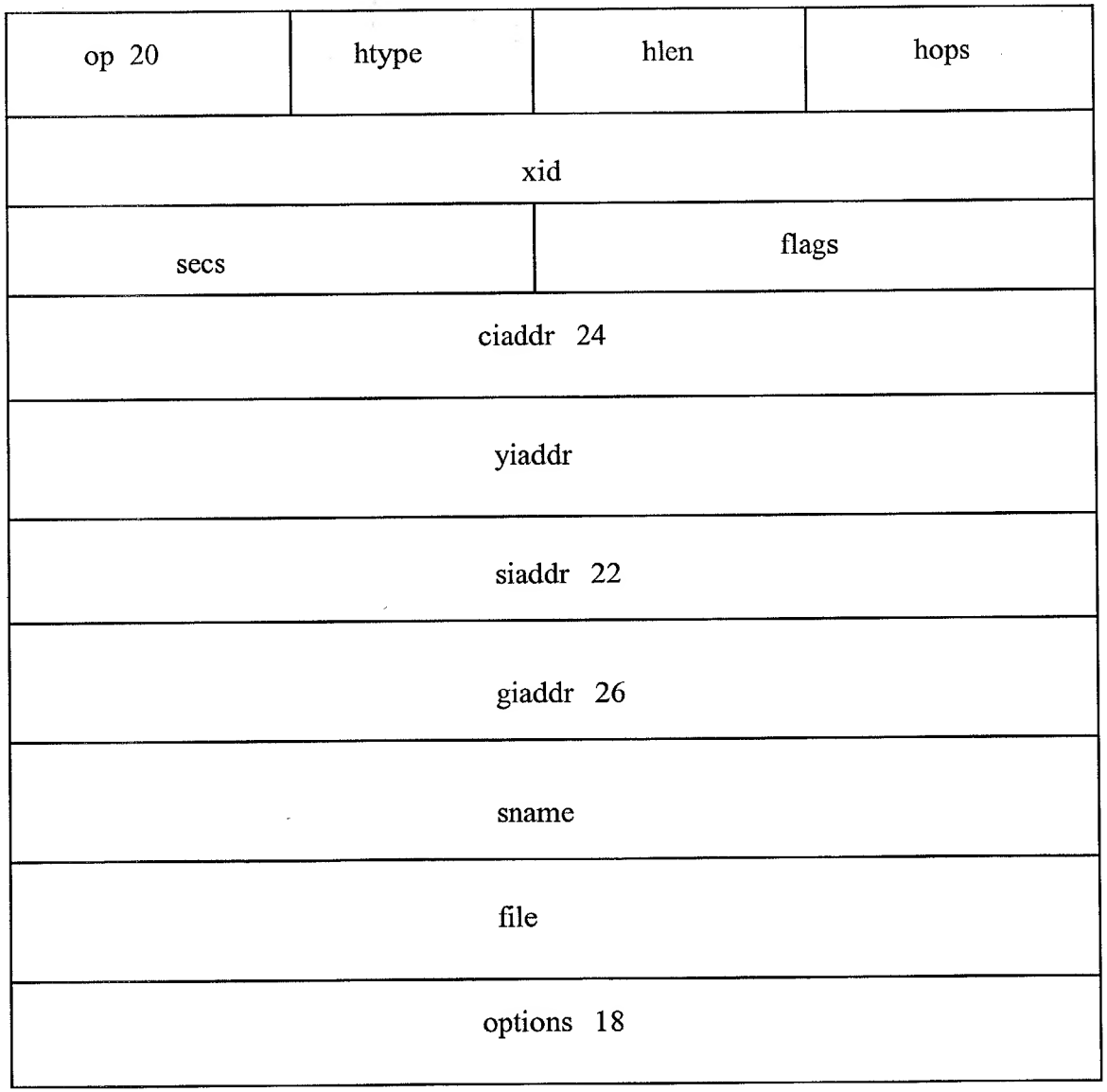

FIG. 2
(Prior art)

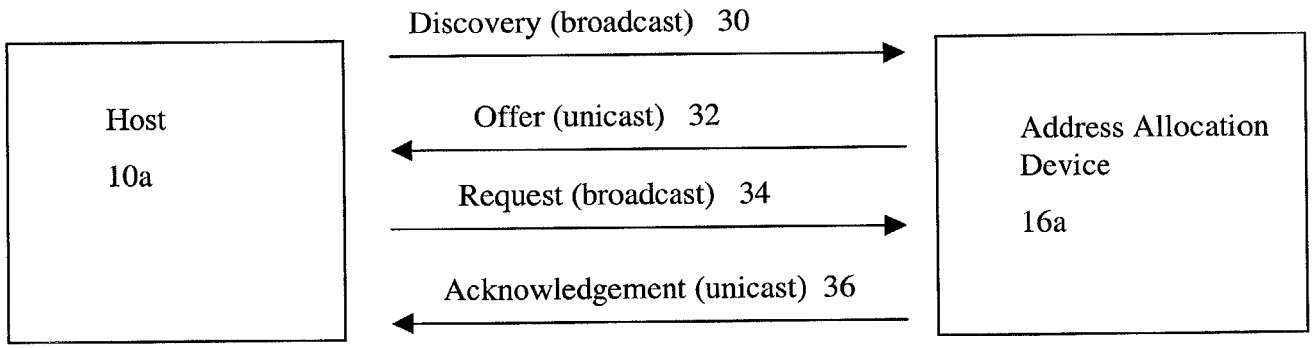

FIG. 3
(Prior art)

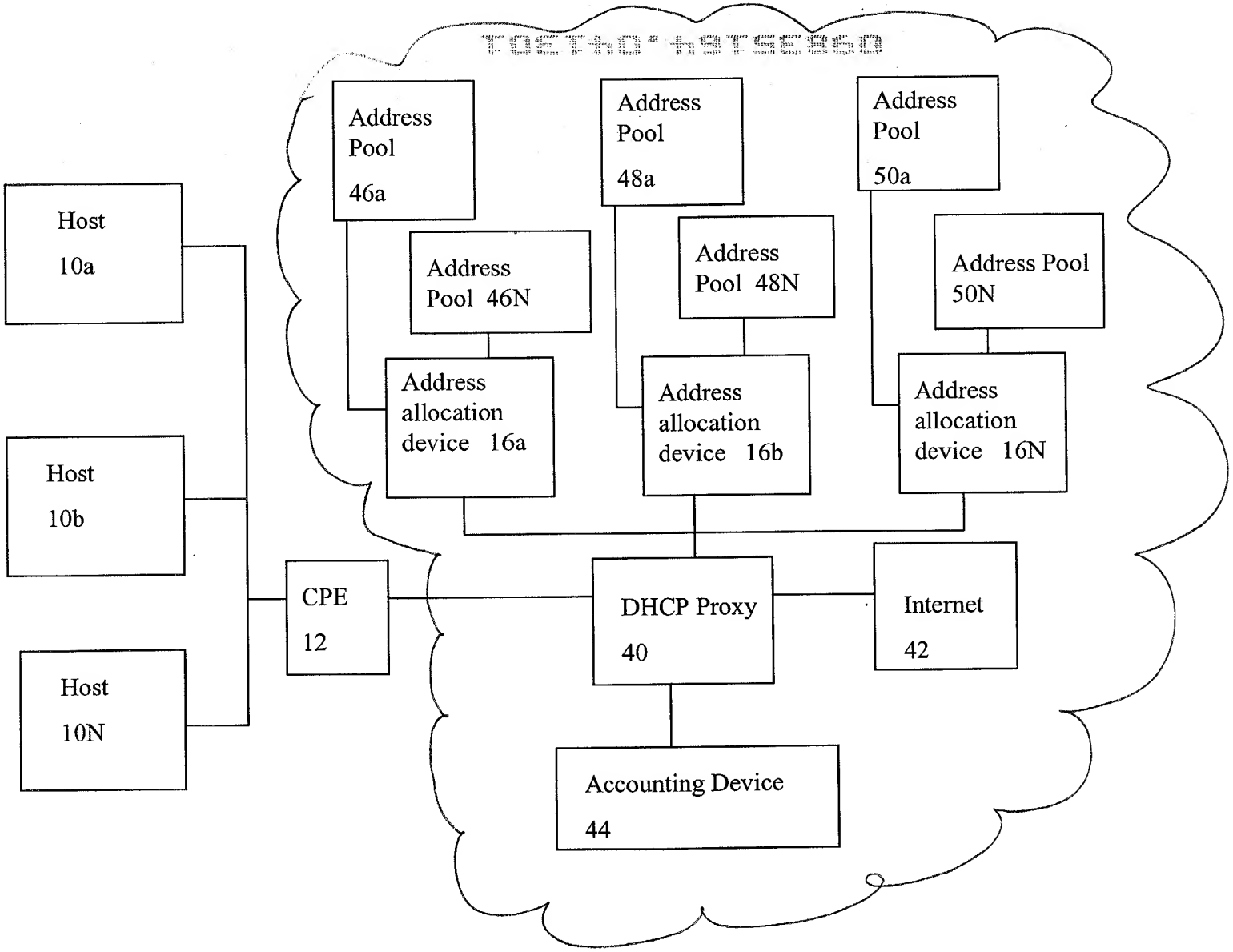
Address Pool 46a
Address Pool 48a
Address Pool 50a
Host 10a
Address Pool 46N
Address Pool 48N
Address Pool 50N
Address allocation device 16a
Address allocation device 16b
Address allocation device 16N
Host 10b
CPE 12
DHCP Proxy 40
Internet 42
Host 10N
Accounting Device 44

FIG. 4

Top-to-Bottom

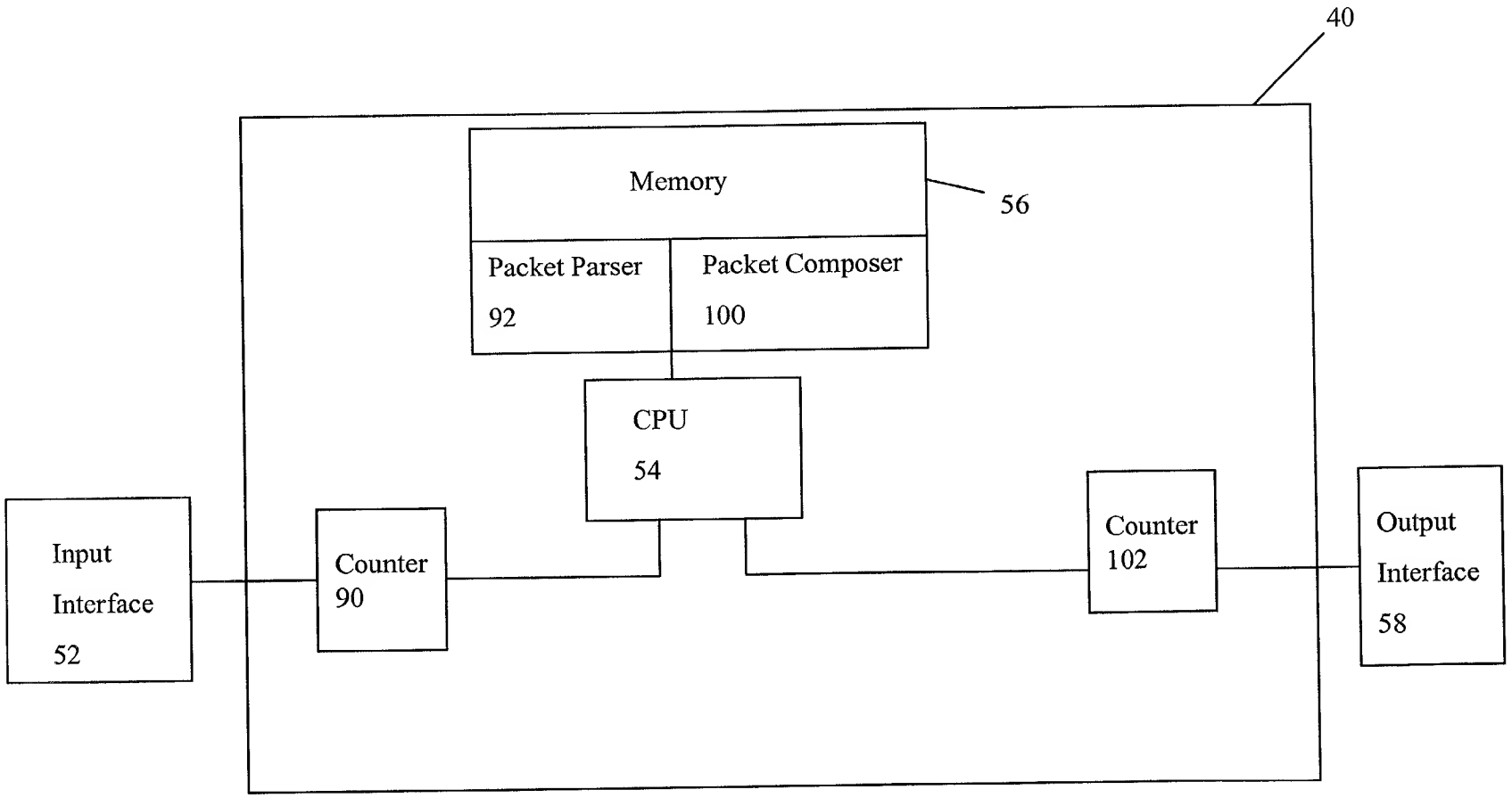

FIG. 5A

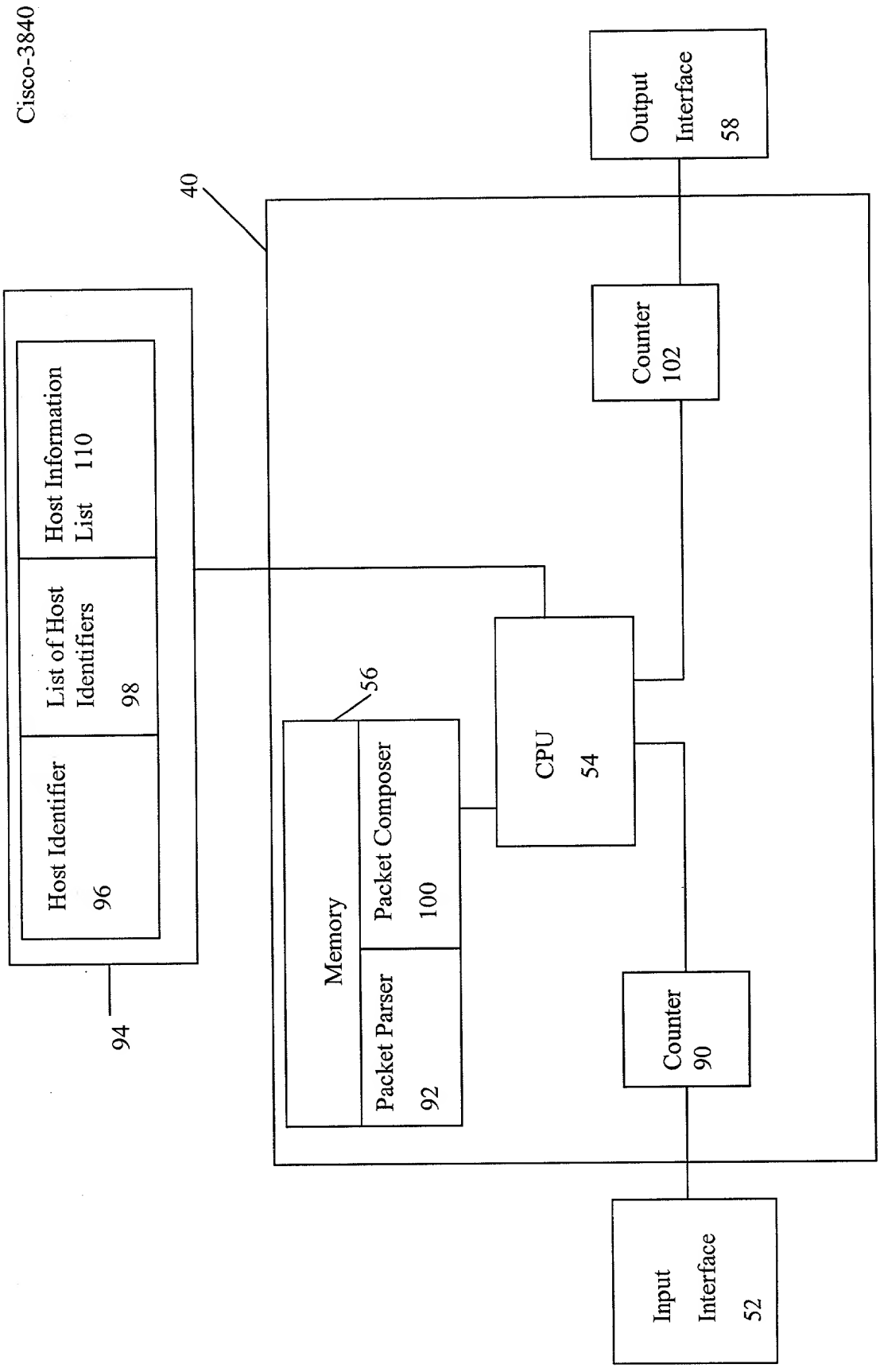
Cisco-3840
40
Output Interface 58
Counter 102
Host Information List 110
List of Host Identifiers 98
Host Identifier 96
94
Memory
56
Packet Composer 100
Packet Parser 92
CPU 54
Counter 90
Input Interface 52

FIG. 5B

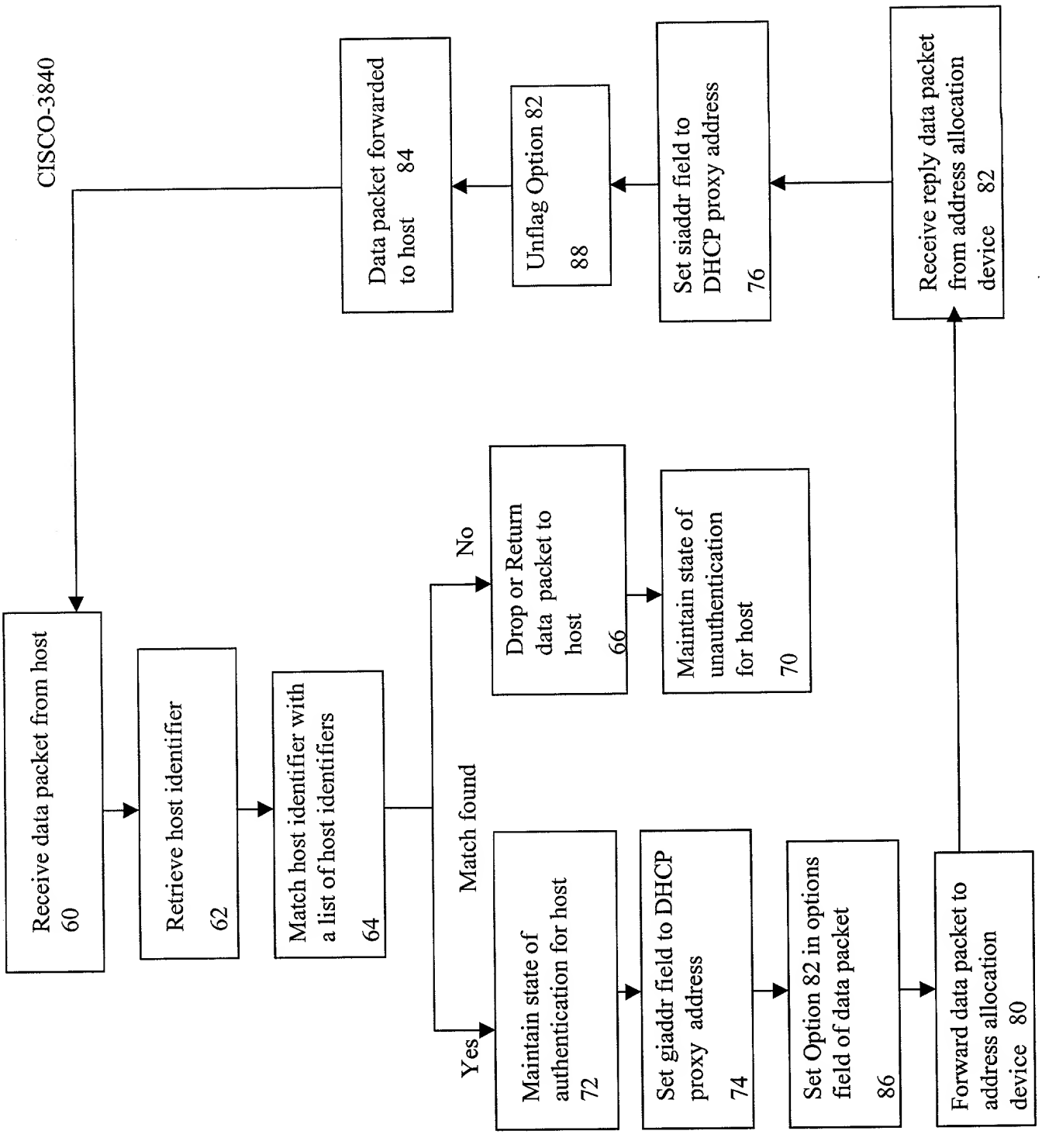
CISCO-3840
Receive data packet from host 60
Retrieve host identifier 62
Match host identifier with a list of host identifiers 64
Match found
Yes
No
Maintain state of authentication for host 72
Set giaddr field to DHCP proxy address 74
Set Option 82 in options field of data packet 86
Forward data packet to address allocation device 80
Drop or Return data packet to host 66
Maintain state of unauthentication for host 70
Receive reply data packet from address allocation device 82
Set siaddr field to DHCP proxy address 76
Unflag Option 82 88
Data packet forwarded to host 84

FIG. 6